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Wild *Allium* spp. as Natural Hosts of *Iris yellow spot virus*. H. R. Pappu, Department of Plant Pathology, Washington State University, Pullman 99164; and B. C. Hellier and F. M. Dugan, USDA-ARS, Western Regional Plant Introduction Station, Washington State University, Pullman 99164. *Plant Dis.* 90:378, 2006; published on-line as DOI: 10.1094/PD-90-0378A. Accepted for publication 20 December 2005.

The incidence of *Iris yellow spot virus* (IYSV) of genus *Tospovirus*, family *Bunyaviridae* in a commercial onion crop was first confirmed in Washington state during 2003 (1). First found in Adams County, IYSV has rapidly spread to all onion-producing counties in the state, affecting seed and bulb crops. The USDA-ARS Western Regional Plant Introduction Station (WRPIS) collects, maintains, and distributes various *Allium* (garlic and onion) accessions. As part of the regeneration process, accessions are grown under field conditions at the WRPIS farms in two locations: Pullman and Central Ferry, WA. Symptoms indicative of viral infection, now known to be caused by IYSV, first appeared in field-grown accessions in 1999. In June 2005, leaf and scape tissues were collected from WRPIS accessions of wild onions (*Allium pskemense*, *A. vavilovii*, and *A. altaicum*) in Central Ferry that had symptoms indicative of IYSV infection (2). IYSV infection was confirmed using enzyme-linked immunosorbent assay with a commercially available kit (Agdia Inc., Elkhart, IN). Virus infection was further verified using reverse transcription-polymerase chain reaction (RT-PCR) with primers derived from the small (S) RNA of IYSV. The primers flanked the IYSV N gene (5(prime)-TAA AAC AAA CAT TCA AAC AA-3(prime) and 5(prime)-CTC TTA AAC ACA TTT AAC AAG CAC-3(prime)). RT-PCR gave a PCR product of expected size (approximately 1.2 kb). The DNA amplicon was cloned and sequenced. Nucleotide sequence comparisons with known IYSV N gene sequences showed 95 to 98% sequence identity. The prevalence of the vector, onion thrips (*Thrips tabaci*), combined with the widespread incidence of IYSV in seed and bulb production areas of the state may have resulted in natural infection of wild relatives of cultivated onion. The potential role of wild *Allium* spp. in IYSV epidemiology remains to be determined. Information on the extent of IYSV infection of onion germplasm would be useful in identifying potential sources of host plant resistance to IYSV.

References: (1) L. J. du Toit et al. *Plant Dis.* 88:222, 2004. (2) B. Hellier et al. *APSnet Image of the Week*. Online publication, iw000049.asp, 2004.

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